

A CASE
OF
EPITHELIOMA OF THE URETER CAUSING
HYDRONEPHROSIS.

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Epithelioma of the ureter causing hydronephrosis.

By HENRY RUNDLE, F.R.C.S. (per J. H. TARGETT, M.S.).

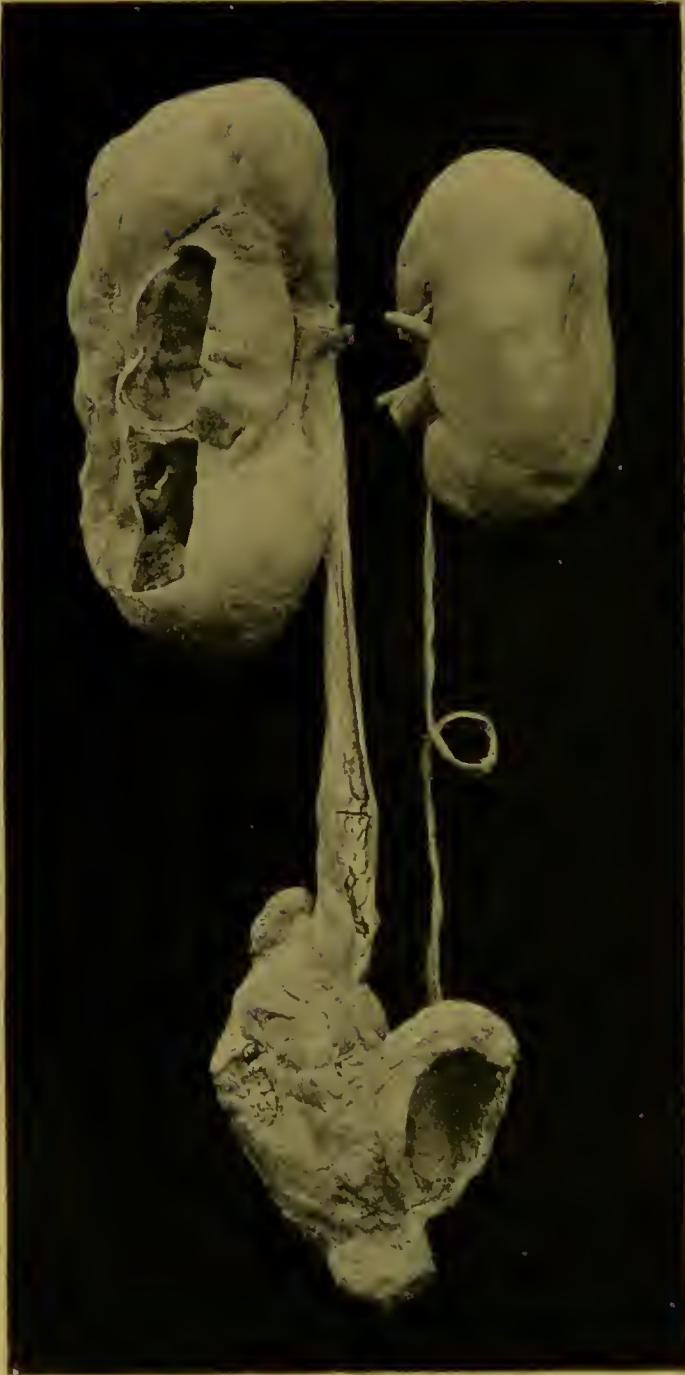
HISTORY.—E. B—, a gardener, aged 46, a weak and emaciated man, was admitted into the Portsmouth Royal Hospital on April 2nd, 1895, under my care. His parents died from old age, but two sisters are stated to have died from cancer. Nearly the whole of his body was affected with psoriasis, which had existed for sixteen years. About a year before admission he noticed a fulness in the right side of the abdomen, which increased gradually and painlessly. On admission the abdomen was flaccid, except on the right side, where a fluctuating swelling, dull on percussion, occupied the front and lower part of the abdomen; it commenced two inches below the thorax, and extended to the middle line as well as far back into the lumbar region.

Urine clear, freely voided, sp. gr. 1018, no albumen; he had passed blood, but not recently. There was no history of pain and no other symptoms of renal calculus.

On April 19th the swelling was tapped, and 80 ounces of fluid were evacuated. This fluid was alkaline, sp. gr. 1020, and became almost solid on boiling. The sediment obtained from the fluid was found to consist chiefly of blood and large granular corpuscles with a few columnar epithelial cells.

For a fortnight there was no return of the swelling. The man became very emaciated, and so weak that he was unable to sit up in bed. Suspecting malignant disease, it was not deemed advisable to attempt a removal of the kidney. The fluid having slowly re-accumulated, the cyst was tapped on May 29th and 60 ounces of fluid similar to that obtained before were evacuated. He passed into a semi-comatose state, and died from exhaustion on June 4th.

Autopsy.—Numerous secondary deposits of growth were found in the liver, lungs, and abdominal lymphatic glands. Microscopical examination of these deposits revealed a squamous-celled epithelioma, but the central cells of the epithelial processes tended to undergo a granular rather than a keratoid change. Hence there were no cell-nests.



The kidneys, ureters, and bladder were removed and sent to Mr. Targett at the College of Surgeons. He has kindly prepared the subjoined description of these organs.

“ The parts submitted for examination consisted of the bladder and kidneys, with the whole length of the ureters. Of these organs the left kidney and corresponding ureter were normal.

“ *Right kidney*.—Converted into a thin-walled multilocular cyst by extreme dilatation of the calyces and absorption through pressure of the cortex. The kidney as a whole, while retaining its general outline, was much elongated, so that it measured $6\frac{3}{4}$ inches in length, after considerable shrinkage from immersion in spirit. The wall of the cyst had an average thickness of an eighth of an inch, and this measurement included the fibrous capsule of the kidney with the lining membrane of the dilated calyx and the entire breadth of the renal parenchyma. So atrophied was this parenchyma that it could only be detected here and there. In contrast with the extreme dilatation of the calyces it is worthy of note that the pelvis of the kidney was barely larger than normal. The hilum and its contents were normal.

“ *Right ureter*.—This was fully three inches shorter than its fellow, and markedly dilated, especially in the middle third. The lowest three inches were involved in a large growth behind the bladder, to be subsequently described. The interior of the ureter presented numerous secondary deposits of growth in the mucous membrane, which were arranged in separate nodules or clustered to form prominent ridges. This condition extended to within one inch of the pelvis of the kidney.

“ *Bladder*.—This was for the most part healthy in appearance. Its cavity was small from the action of spirit, but the vesical wall was not hypertrophied nor the mucous membrane thickened. The orifice of the left ureter was normal, and that of its fellow was quite distinct, but through the right orifice protruded a small polypoid tumour the size of a pea. This polypus was made up of a collection of minute warty growths closely applied to one another. Behind the right ureteral orifice and the base of the trigone the mucous surface of the bladder was roughened as if from superficial ulceration. The prostate was normal.

“ As previously stated, the right ureter terminated below in an oval tumour situated at the back of the bladder. This tumour measured nearly four inches in its chief diameter, and two inches in thickness.

It was firmly attached to the base and posterior surface of the bladder, the peritoneum being partially raised from the bladder in that region. In structure the growth was soft, white, and very friable.

“The relations of the vesiculæ seminales and vasa deferentia were not easily determined, as they all appeared to be more or less invaded by growth. The left vesicula was greatly enlarged, partly by cystic dilatation and partly by a mass of new growth which had formed on its inner (median) side, and was directly continuous with the main tumour. The left vas deferens was embedded in this mass of growth. On the right side the vesicula could not be recognised as such, and the position of the right vas deferens was not certainly made out. Both these organs were involved in the main tumour, and probably infiltrated by it.

“Microscopical sections were prepared from the edge of the neoplasm where it was advancing up the right ureter. These sections showed that the tumour was a squamous-celled epithelioma, and that the muscular coat of the ureter was extensively infiltrated.”

From this examination it appeared that the disease began as an epithelioma of the lower end of the right ureter, probably just above the spot where it perforated the muscular coat of the bladder. Thence the growth extended upwards along the ureter, and downwards into the vesical wall, which it invaded without fungating into the cavity of the bladder. Laterally it extended into and absorbed the right vesicula seminalis, and subsequently advanced to the opposite vesicula. If it were contended that the tumour might have originated in the right vesicula, that objection would be met by the structure of the tumour, which was unlike that of a primary carcinoma of the vesicula seminalis. Further, the way in which the right ureter passed into the centre of the tumour, the distension of its calibre by growth, and the infiltration of its wall, were important facts which clearly indicated that the ureter was the primary seat of the disease.

The specimen is preserved in the Museum of the Portsmouth Royal Hospital.

November 19th, 1895.